

shows that out of a total of 171 recorded instances of transmission, 160 conform to the so-called "law of Nasse," that the disease is transmitted by the unaffected female—the "conductor." After a very careful consideration of all the available facts the authors do not feel convinced that they are justified in concluding that hæmophilia is capable of being propagated through the male.

The authors are to be congratulated on the accomplishment of an arduous piece of work which required to be done. It has been accomplished in a manner well worthy of the *Treasury* to which it belongs.

J. A. T.

Davenport, C. B & Weeks, DAVID F. *A First Study of Inheritance in Epilepsy.* Eugenics Record Office. Bulletin No. 4, reprinted from *Journal of Nervous and Mental Disease*, Vol. 38; No. II., pp. 641-670; 1911; pp. 30.

THIS research is based on pedigrees of inmates of the New Jersey State Village for Epileptics, which were obtained at the expense of considerable care and trouble by Mrs. D. L. Field Woodward and Miss S. C. Deritt, who made personal visits to the homes of the patients, and interviewed their parents, relatives and physicians. Some of the conclusions of the authors are as follows.

(3) "When both parents are either epileptic or feeble-minded all their offspring are so likewise."

This conclusion is not borne out by the data. Table I. opposite p. 4 in the last line records that a feeble-minded father and an epileptic mother had a family consisting of two normal children.

(4) "The conditions named migraine, chorea, paralysis, and extreme nervousness behave as though due to a simplex condition of the protoplasmic factor that conditions complete nervous development; i.e., persons belonging to those classes usually carry some wholly defective germ cells. Such persons may be called tainted."

(5) "When such a tainted individual is mated with a defective about one-half the offspring are defective."

We presume that this conclusion is based on the data summarised in Tables II. and III., p. 10; as a numerical statement it is so vague as to elude criticism, since we are not told what classes are included as defective, nor whether those who died early and those about whose condition no information is available are excluded or included. There is also a more serious objection. The only evidence which could support a conclusion of this kind is a number of records of matings selected at random in so far as concerns the mental condition of the offspring. Directly this condition is departed from in that matings producing offspring of a particular class are selected, a bias is introduced which completely vitiates the conclusion. Such a bias is introduced in the present case by the fact that in every mating except two recorded in these tables, one at least of the offspring is an epileptic. The manner in which the material was collected rendered this state of things inevitable, and it is to be regretted that the authors have tried to put it to uses for which it is unsuitable.

The same objections hold in exactly the same way to conclusions 6 and 7, namely, "When a simplex normal is mated with a defective about half the offspring are normal; the others defective or neurotic." "When both parents are simplex in nervous development and tainted about one-quarter, actually 30 per cent., are defective."

As conclusion No. 4 quoted above rests on Nos. 5, 6 and 7, it can only be maintained if they are established, and although we do not wish to dispute them they cannot be accepted unless supported by evidence of an entirely different kind to that produced in the present paper.

We regret to have to raise these objections to a piece of work

which contains so much that is valuable. The careful collection of pedigrees is matter the importance of which cannot be over-estimated, and if human defects can be shown to be transmitted in a Mendelian manner it will be of the utmost service to Eugenics, but we cannot believe that claims that it has been proved when based on evidence that is insufficient or unsuitable, can result eventually in anything but the discrediting of the Mendelian method.

E. SCHUSTER.

Bulletin de la Statistique générale de la France, paraissant tous les trois mois. Tome I., fascicule III. Janvier, 1912. Paris; Libraire Felix Alcan.

MANY questions arise the answers to which may be found in the official statistics published by various countries and municipalities, but a considerable knowledge of how and where to look is necessary, and not always available. A single number of this journal, such as that before us, would probably afford one the clue to the answering of any of these questions, even if it did not contain the answer in itself. A statistical journal necessarily deals with a somewhat heterogeneous collection of subjects, since their common feature is the method by which they are studied, and not their essential nature, thus we have here at the beginning a collection of meteorological statistics, and at the end a treatise on the fluctuations of commerce and industrial movements, such as the growth of trades unionism, and the incidence of strikes and lock-outs, in their relation to the fluctuations of prices. Between the two may be found much that is of more direct interest to students of Eugenics. For example, on page 115 is a tabular comparison between the more important towns in Germany, Austria, Belgium, Denmark, Spain, France, Great Britain, Ireland, Greece, Italy, Norway, Holland, Roumania, Russia, Sweden and Switzerland, with respect to the following particulars. (1) Population in millions, (2) number per 10,000 inhabitants of newly married persons, of infants born alive, and of deaths. (3) The number of illegitimate in every hundred children born alive. Under each of these headings two periods are compared, namely, 1907-1909 and 1880-1882.

The compiler of this valuable table leaves the reader the easy task of drawing his own conclusions from it, and some truly astounding contrasts are shown, particularly with regard to proportion of illegitimate children. This is much higher in Austria and Hungary, but appears to be rapidly declining there. Thus, in Vienna, in the years 1880-1882, out of every hundred children born alive 44 were illegitimate, and in 1907-1909, 30. For London the corresponding figures are 3.9 and 3.5. In France the percentages are considerably higher than in England, and show in many of the towns a distinct tendency to rise; thus at Nancy the proportion for the earlier period was 19.4, for the later 24.9, and at Nice 16.2 and 20.7 respectively. This does not mean necessarily that the illegitimate birth-rate has gone up, it has remained about stationary, while the legitimate birth-rate has fallen.

In another table death-rates in France from the principal causes are analysed, the years 1907, 1908, 1909 being compared. The death-rate from tuberculosis is treated elaborately in tables which give particulars for ten different countries, and distinguish between the sexes, and for each sex and country classify the deaths according to the age at which they occur. The rates for towns of different sizes are also treated comparatively.

Of other subjects which come in for particular attention are the wages and cost of living in various places, the amount of the agricultural produce of all civilised lands with the area under cultivation, the production of combustible minerals, and many additional matters of economic importance. The sources from which the figures are drawn are given in almost all cases, and the number concludes with a useful bibliography of official statistical publications.

E. S.